

Note on the Genus Chevreulius of Lacaze-Duthiers.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,—Mr. Alder, in the ‘Annals’ for February last, has stated that the genus *Chevreulius* of Lacaze-Duthiers has been described twice before, by Messrs. Stimpson and Macdonald.

I believe that the same genus is distinctly indicated by Ehrenberg (1828) in the introduction to his ‘*Symbolæ Physicæ*’ (Mammalia, p. 3), thus: “. . . quod formam animalium novam attulimus (*Rhodosoma verecundum*) Ascidiis bivalvibus Molluscis externa etiam forma adnectentem, Ascidiam scilicet tunica cartilaginea bivalvi indutam.” These words seem to prove that the genus is found in the Red Sea.

I take this occasion to call to mind a curious body described by Linnæus as an *Asterias*, but which perhaps may prove to be founded on a dried specimen belonging to *Rhodosoma*.

Asterias (lunata) semiorbiculata.

Corpus depressum, referens lunam dimidiatam, cum suis cornibus, adpersum undique punctis obsoletis, absque oris aut ani vestigio. (Linn. in “*Chinensia Lagerströmiana*,” ‘*Amœnitates Academicæ*,’ iv. p. 256, n. 44. fig. 14.)

The figure represents a crescent-shaped body, about 2 inches long, with some dispersed granulations on the surface.

Perhaps, however, it is only an object of art, like the *Corallium chinense* on the same plate, which represents a piece of jade formed into a man on horseback.

I am Gentlemen,
Yours obediently,
O. A. L. MÖRCH.

Copenhagen, Feb. 27, 1866.

On the Functions of the Air-cells, and the Mechanism of Respiration, in Birds. By Dr. DROSIER.

After brief mention of the additions made to our knowledge of these matters by numerous distinguished physiologists, the author remarked that still more remained to be done—a proof of the difficulty of the subject. Several of the commonly received views are quite untenable,—such as that the air-cells are intended to assist in supporting the bird in flight, by rendering it lighter, in consequence of the rarefaction of the air in the air-cells, and the hollow bones; and again, that the air-cells are a sort of second respiratory apparatus, so that birds may be described, as they were by Cuvier, as animals having a double respiration. In disproof of these views, it was shown that a pigeon weighing 10 ounces, or 4375 grains, would have its weight in air diminished by less than one grain in consequence of the rarefaction of the air in its air-sacs and hollow bones; so that the floating-power resulting from such rarefaction would be almost inappreciable. Again, the air-cells are bounded by delicate membranes, in which